

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventors: Bradley S. Hoyl; Carl G. Harrison; Maurice Robertson

Assignee: Cisco Technology, Inc.

Title: Fiber Optic Cabling Management Using Hook And Loop Fabric

Application No.: 09/812,247      Filing Date: March 19, 2001

Examiner: Kimberly T. Wood      Group Art Unit: 3632

Docket No.: CIS0118US      Confirmation No.: 7809

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July 17, 2006

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**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

Dear Sir:

Applicant hereby requests review of the final rejection, mailed March 15, 2006, in the above-identified application. This Request is being filed concurrently with a Notice of Appeal, and with a petition for a one-month extension of time that extends the period for response to July 17, 2006 (since July 15 and 16, 2006 were a Saturday and a Sunday). No amendments are being filed with this request.

Claims 1-6, 11-16, 20-23 and 31-37 are pending in the application. Claims 1-6, 11-16, 20-23 and 31-37 stand rejected in the Final Office Action dated March 15, 2006 (the “Final Office Action”).

**Rejection of Claims under 35 U.S.C. § 103(a)**

Claims 1-6, 11-16, 20-23 and 31-37 stand rejected under 35 U.S.C. § 103(a) in view of various combinations of U.S. Patent No. 5,666,265 issued to Lutz et al. (“Lutz”), U.S. Patent No. 5,292,312 issued to Delk et al. (“Delk 312”), and U.S. Patent No. 5,300,037 issued to Delk et al. (“Delk 037”).

The rejections fail to address all limitations of the pending claims. For example, various limitations of the independent claims are simply not discussed in the Final Office Action.

Independent claim 1 is directed to an apparatus that includes a rigid frame, a substrate having first and second surfaces, and a cable fastener. The first surface includes a first plurality of fasteners. The cable fastener includes a second plurality of fasteners. Moreover, **the second plurality of fasteners is configured not to engage any portion of the cable fastener.** This limitation is not discussed in the Final Office Action.

Independent claim 11 is directed to a method of managing cable. The method includes supporting one or more cables with a cable fastener, releasably engaging the cable fastener to a substrate, and providing a rigid frame capable of accommodating a plurality of fiber cables. The cable fastener includes a strap on which are mounted a first plurality of one type of hook and loop mechanisms. Moreover, **the first plurality of hook and loop mechanisms is configured not to engage any portion of the cable fastener.** This limitation is also not discussed in the Final Office Action.

Independent claim 23 is directed to an apparatus that includes a means for supporting one or more cables, which in turn includes a cable fastener. The apparatus also includes a means for releasably engaging the cable fastener to a substrate that covers at least all of one side of the cable fastener, and a cable routing apparatus. Moreover, **the means for releasably engaging the cable fastener to a substrate is configured not to releasably engage with any portion of the cable fastener.** This limitation is also not discussed in the Final Office Action.

Independent claim 34 is directed to an apparatus for managing cable. The apparatus includes a cable routing apparatus, a planar substrate, and a tie wrap. The planar substrate includes a first surface and a second surface. The first surface of the substrate includes a plurality of engagement mechanisms. The tie wrap includes loops capable of engaging the engagement mechanisms of the substrate. Moreover, **the loops are configured not to engage any portion of the tie wrap.** This limitation is also not discussed in the Final Office Action.

Various limitations of Applicant's claims are not disclosed in the cited art. For example, with regard to the limitation of a "cable fastener" in Applicant's claim 1, the Final Office Action refers to Lutz's elongate strip 282. However, as stated at col. 8, lines 50-53 of Lutz, Lutz's elongate strip 282 "provides a covering of female VELCRO 283 on one side and male VELCRO 284 on the other." With this configuration, the elongate strip 282 may engage another portion of the elongate strip 282 as illustrated in FIG. 7b of Lutz when the elongate strip 282 is wrapped

about a bundle of power cables and cords 507. Thus, unlike Applicant's claim 1 that requires the cable fastener to have fasteners "configured not to engage any portion of the cable fastener," the elongate strip 282 includes fasteners that are specifically configured to engage another portion of the elongate strip 282. In other words, the limitations of Applicant's cable fastener are not evident from Lutz's elongate strip 282.

Additionally, with respect to many of the claim limitations that were addressed in the Final Office Action, Applicant has been left to speculate as to the Final Office Action's intended application of the cited references to the claim limitations.

For example, apparently with respect to at least Applicant's independent claim 1, on pages 2-3 of the Final Office Action states that "Lutz discloses the claimed invention except that instead of fiber, electrical, or metal cables they show power cables." On page 3, the Final Office Action then states that "Lutz discloses all of the [claimed] limitations ... except for the hooks being mushroom shaped, pine-tree-shaped." In contrast, on page 5 the Final Office Action states that "Lutz discloses all of the limitations of the claimed invention except for the cable fastener having a head having a width greater than the predetermined width and defining an opening." A further conflicting statement appears on page 4: "Lutz in view of Delk 312 discloses all of the limitations of the claimed invention except for one of the plurality of hook and loop mechanisms that covers at least all of one side of the cable fastener and the head portion having a size substantially similar to a size of the variable width opening." The Final Office Action thus appears to be inconsistent regarding the teachings of Lutz, and leaves questions as to the reasoning provided for the intended rejections. Applicant respectfully requests clarification regarding the purported teachings of Lutz.

Applicant additionally requests clarification regarding which combinations of the cited references are intended to support which rejections of Applicant's claims. On p. 2, the Final Office Action appears to reject claims 1-6, 11-16, 20-23, and 31-37 under § 103(a) based on a three-part combination of Lutz, Delk 312, and Delk 037. On p. 5, Final Office Action appears to reject the same claims under § 103(a) based on a two-part combination of Lutz and Delk 037. If the rejections are maintained, Applicant respectfully requests clarification whether the two parallel lines of reasoning are intended to be complimentary, or whether these lines of reasoning are intended to apply to different ones of Applicant's pending claims.

Applicant further submits that a person having ordinary skill in the art would not have a motivation to make the proposed combination of Lutz, Delk 312, and Delk 037. The Final Office Action turns to Delk 312 in an attempt to show a cable fastener “having a head having a width greater than the predetermined width and defining an opening” (Final Office Action, page 4). However, the strap portion 30 of Delk 312 includes features that cause the teachings of Delk 312 to be a poor candidate for a combination with Lutz. For example, the elongate strip 282 of Lutz requires two fastener type materials, while Delk 312 teaches the use of a strap portion 30 including only one type of fastener material. Delk 312’s single fastener type strap portion 30 would teach a person having ordinary skill in the art to modify Lutz’s double fastener elongate strip 282 to include only a single fastener type material, and a single fastener type material on the Lutz elongate strip 282 would not work in the Lutz system. In view of this failure, a person having ordinary skill in the art would not make the proposed combination of Delk 312 with Lutz.

Further, a person having ordinary skill in the art would not combine Lutz with either of Delk 037 and Delk 312 because these references use very different methods to hold objects. Delk 037 and Delk 312’s strap portion 30 includes an end with a cutout 37; the other end of the strap portion 30 passes around a medical conduit and through the cutout 37 to surround the medical conduit. In contrast, Lutz’s elongate strip 282 is a strap without an opening and, unlike either Delk 312 or Delk 037, is a strap with two types of fastener material that wraps upon itself to hold cables. A person having ordinary skill in the art would not combine these incommensurate methods of operation.

The proposed combination of references also would not have a reasonable likelihood of success in achieving Applicant’s invention. In particular, there is no reasonable expectation of success from combining Delk 037 and Delk 312 with Lutz to produce a cable fastener in which at least all of one side of the cable fastener is covered with one type of fastener material, as required by Applicant’s claim 1. One cannot expect success from combining the multi-fastener material device of Lutz with the single-fastener devices of either Delk 037 or Delk 312 because a different substrate altogether would be required to accommodate Lutz’s elongate strip 282. Further, not only would the combination fail to successfully provide Applicant’s claimed invention, neither of these two types of cable fastener systems would operate correctly with the other system.

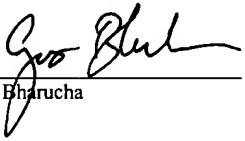
In addition, even if an arrangement could be found from the cited references in which a cable fastener of sorts were created to hold cables, the arrangement would not provide a simple technique for quickly securing or removing a variable number of cables, as provided by various embodiments of the claimed invention. **At best, an arrangement that adds the large end of Delk 037 (with cutout 37) to the system of Lutz would result in a device being unwieldy and difficult to position because of the bulky nature of the large end of the Delk 037 device.** This modification would also require a complex cable access method, in which cables may be susceptible to breaking upon access. For example, cable damage may be likely whenever cables are removed or added to a group of previously secured cables. This risk of damage arises because the large end of Delk 037 is anchorable: the cables in such a system would be doubly anchored, on both sides of the cable. (This double-anchoring would be similar to the situation shown in FIG. 1 of Delk, in which a medical conduit is restrained by attachments on either side of the conduit.) Such a situation in which cables are susceptible to damage is unacceptable, and is a problem that may be avoided by various embodiments of the claimed invention.

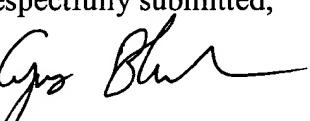
For at least these reasons, Applicant believes that independent claims 1, 11, 23, and 34, and all claims dependent therefrom, are allowable under § 103(a). Applicant therefore respectfully urges the withdrawal of the rejections under § 103(a).

### CONCLUSION

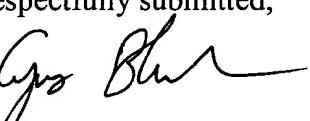
Applicant respectfully submits that the application is in condition for allowance and requests that a finding withdrawing the final rejection of the claims be issued.

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Mail Stop AF, Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450, on July 17, 2006.

  
Cyrus F. Bharucha

  
2006 July 17  
Date of Signature

Respectfully submitted,

  
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